

REMARKS

The present amendment is submitted in response to the Office Action mailed May 19, 2005. Claims 1-4 and 10-12 are currently pending in the application. By this amendment, Claim 1 has been amended, Claims 5-9 have been cancelled and Claims 10-12 have been added. No new matter or issues are believed to be introduced by this amendment. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Allowed Claims

Applicant wishes to thank the Examiner for indicating that Claims 2-4 are allowed and that Claims 6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have elected to rewrite dependent Claim 6 in independent form including all of the limitations of independent Claim 5 (see new Claim 10). Hence, it is believed that Claim 10 is in condition for allowance. Applicants have also elected to rewrite dependent Claim 9 in independent form including all of the limitations of independent Claim 8 (see new Claim 12). Hence, it is believed that Claim 12 is in condition for allowance. Applicants have further added new claim 11 which depends from independent Claim 10, respectively, and therefore contains the limitations of Claims 10. For at least the same reasons given for Claim 10 above, Claim 11 is believed to be allowable over Lim.

Claim Objections

Claim 9 was rejected for certain informalities. Claim 9 has been cancelled and has been rewritten in independent form as new independent claim 12 in a manner that is believed to overcome the objection.

35 U.S.C. §102(b)

Claims 1, 5, 7 and 8 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,748,674 – Lim. The Applicant respectfully traverses the rejection of independent Claim 1, however, independent Claim 1 has been amended herein to better define Applicant's invention over Lim. Claim 1 recites limitations and/or features which are not disclosed by Lim.

Claim 1 as amended herein recites:

1. First and second feedback equalizer signals for controlling a decision feedback equalizer, wherein the first feedback equalizer signal is supplied as output from a first feedback loop and is delayed by an implementation delay and wherein the second feedback equalizer signal is supplied as output from a second feedback loop and is free of the implementation delay, wherein said first and second feedback loops process decisions from a decision device common to both of said first and second loops, **wherein the output of the decision feedback equalizer is common with an input of the decision device.** [Emphasis Added]

Claim 1 as amended recites a structural (and operational) difference between the decision feedback equalizer of the invention and the decision feedback equalizer shown in Fig. 6 of the cited reference, Lim. Specifically, as shown in Fig. 4 of the application and recited in amended claim 1, the output of the decision feedback equalizer 200 of the

invention is common with an **input** of the decision device 240. In contrast, Lim illustrates in Fig. 6, a structural configuration whereby an output of the decision feedback equalizer is common with an **output** of the decision device 30. This structural difference results in significantly different performance results, as will be described.

In general, a decision feedback equalizer output is typically coupled to an input of a Viterbi decoder. Whenever more bits are supplied from the decision feedback equalizer, better or enhanced performance results. A well known term of art for supplying additional bits is referred to as providing 'soft bits'. The structural configuration of the decision feedback equalizer of the invention, as illustrated in Fig. 4, and as recited in claim 1 as amended, provide the required additional (i.e., soft bits) to a Viterbi decoder. In contrast, the decision feedback equalizer shown in Fig. 6 of Lim provides a sliced output which provides **less bits** than are required to achieve enhanced performance. As stated above, Lim illustrates in Fig. 6, a structural configuration whereby an output of the decision feedback equalizer is common with an **output** of the decision device 30 (providing a sliced output) to a Viterbi decoder.

It is respectfully submitted that at least the limitations and/or features of Claim 1 which are underlined and italicized above is not anticipated by the disclosure of Lim.

Accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) with respect to Claim 1 and allowance thereof is respectfully requested.

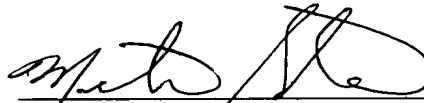
With regard to the rejection of claims 5, 7 and 8. These claims have been cancelled and rewritten as new claims 10-12, in the manner described above.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-4 and 10-12 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Michael Scaturro, Esq., Outside Intellectual Property Counsel, Philips Electronics North America, at 516-414-2007.

Respectfully submitted,



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